

Abstract Submitted
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From the Standard Model to Discoveries - Physics with the CMS Experiment at the Dawn of the LHC Era DIMITRI BOURILKOV, University of Florida, CMS EXPERIMENT COLLABORATION — The preparations of the CMS collaboration for first data taking, when the Large Hadron Collider (LHC), located close to Geneva, Switzerland, starts to circulate and collide proton-proton beams at center-of-mass energies around 14 TeV in 2007, are presented. This new and unexplored energy domain will provide unique opportunities to search for new physics at the TeV scale, a preferred region for many extensions of the Standard Model. The status of the CMS detector and the possible impact of staging on the physics program are presented, followed by a description of the main data samples and their use for alignment and calibration. Selected search channels and signatures for Higgs bosons, Supersymmetry, Extra dimensions and Contact interactions will be discussed.

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